

IN THE CLAIMS

Please cancel claims 1-22 without prejudice or disclaimer and add new claims 23-34.

--23. (New) A superimposing device for superimposing additional information on a signal, said superimposing device comprising:

generating means for generating a code used for superimposing said additional information on said signal;

setting means for setting first regions of said signal on which said additional information is superimposed with a non-inverted polarity and second regions of the signal on which said additional information is superimposed with an inverted polarity; and

superimposing means for superimposing said additional information on said first regions with non-inverted polarity using said code and on said second regions with inverted polarity using said code,

wherein said first and second regions are defined on the basis of N ($N \geq 1$) chips of said code.

24. (New) A superimposing device for superimposing additional information on a signal, said superimposing device

comprising:

generating means for generating a code used for superimposing said additional information on said signal;

setting means for setting first regions of said signal on which said additional information is superimposed with a non-inverted polarity and second regions of the signal on which said additional information is superimposed with an inverted polarity; and

superimposing means for superimposing said additional information on said first regions with non-inverted polarity using said code and on said second regions with inverted polarity using said code,

wherein said first and second regions are defined on the basis of units formed by dividing a chip of said code used for superimposing into a plurality of said units.

25. (New) The superimposing device as claimed in claims 23 or 24, wherein said first regions and said second regions are set to said signal alternately.

26. (New) The superimposing device as claimed in claims 23 or 24, wherein, said generated code is a spread code, and said superimposing means superimposes said additional information on said first regions and said second regions of said signal by

performing a spreading process on said additional information using said spread code.

27. (New) The superimposing device as claimed in claim 26, wherein said superimposing means superimposes said additional information on said first regions and said second regions of said signal by performing a spread spectrum process on said additional information using said spread code.

28. (New) The superimposing device as claimed in claims 23 or 24, wherein said superimposing means superimposes said additional information on said first regions with non-inverted polarity using said code and on said second regions with inverted polarity using a inverted code.

29. (New) A detecting device for detecting additional information from a signal on which said additional information is superimposed, said detecting device comprising:

generating means for generating a first code for first regions of said signal on which said additional information is superimposed with a non-inverted polarity and for generating a second code having a polarity different from a polarity of said first code for second regions of said signal on which said

additional information is superimposed with an inverted polarity, wherein said first and second regions are defined on the basis of $(N \geq 1)$ chips of said first code; and

detecting means for detecting said additional information superimposed on said signal using said first code on said first region of signal and using said second code on said second regions of signal.

--30. (New) A detecting device for detecting additional information from a signal on which said additional information is superimposed, said detecting device comprising:

generating means for generating a first code for first regions of said signal on which said additional information is superimposed with a non-inverted polarity and for generating a second code having a polarity different from a polarity of said first code for second regions of said signal on which said additional information is superimposed with an inverted polarity, wherein said first and second regions are defined on the basis of units formed by dividing a chip of said code used for superimposing into a plurality of said units; and

detecting means for detecting said additional information superimposed on said signal using said first code on said first regions of said signal and using said second code on said second regions of said signal.

--31. (New) The detecting device as claimed in claims 29 or 30, wherein

said detecting means detects said additional information superimposed on said signal by integrating results of a processing using said first code on said first regions of said signal and using said second code on said second regions of said signal.

--32. (New) The detecting device as claimed in claims 29 or 30, wherein said generating means generates said first code and said second code alternately.

--33. (New) The detecting device as claimed in claims 29 or 30, wherein

said first code and said second code are spread codes, and

said detecting means detects said additional information superimposed on said signal by performing an inverse spreading process on said first regions of said signal using said first spread code and on said second region of said signal using said second spread code.

--34. (New) The detecting device as claimed in claim 33, wherein said detecting means detects said additional

information superimposed on said signal by performing an inverse spread spectrum process on said first regions of said signal using said first spread code and on said second regions of said signal using said second spread code.--